

AMENDMENT UNDER 37 C.F.R. § 1.114

U.S. Application No. 10/755,667

Atty. Docket No. Q79414

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (previously presented): A process for producing a saccharide having a lowered molecular weight, which comprises irradiating an electron beam to a polysaccharide fraction in a solid state at a dosage of d (kGy) which satisfies the following equation:

$$n = M e^{ad}$$

wherein M represents a weight average molecular weight (Da) of the polysaccharide fraction and is a number of 5,000 to 70,000; n represents a weight average molecular weight (Da) of the saccharide having a lowered molecular weight and is an optional positive number; e is the base of natural logarithm; and a is a number of -0.008 to -0.004.

2. (canceled).
3. (previously presented): The process according to claim 1, wherein a is a number of -0.008 to -0.005.
4. (original): The process according to claim 3, wherein a is a number of -0.0075 to -0.0050.

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5. (original): The process according to claim 1, wherein the polysaccharide fraction to which the electron beam is irradiated is a glycosaminoglycan fraction.

6. (original): The process according to claim 5, wherein the glycosaminoglycan fraction is a fraction comprising at least one species of glycosaminoglycans selected from the group consisting of hyaluronic acid, chondroitin sulfate, dermatan sulfate, keratan sulfate, heparan sulfate and heparin.

7-21. (canceled).

22. (previously presented): A process for producing hyaluronic acid having a lowered molecular weight, which comprises irradiating an electron beam to a hyaluronic acid fraction which has a weight average molecular weight of 600,000 to 1,200,000 (Da) and is in a liquid state at a dosage of from 10 to 30 (kGy); and the hyaluronic acid having a lowered molecular weight has a weight average molecular weight of 2,500 to 4,000 (Da).

23. (previously presented): A process for producing hyaluronic acid having a lowered molecular weight, which comprises irradiating an electron beam to a hyaluronic acid fraction which has a weight average molecular weight of 600,000 to 1,200,000 (Da) and is in a liquid state at a dosage of from 30 to 50 (kGy); and the hyaluronic acid having a lowered molecular weight has a weight average molecular weight of 1,700 to 2,500 (Da).

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24. (previously presented): A process for producing hyaluronic acid having a lowered molecular weight, which comprises irradiating an electron beam to a hyaluronic acid fraction which has a weight average molecular weight of 600,000 to 1,200,000 (Da) and is in a liquid state at a dosage of from 50 to 80 (kGy); and the hyaluronic acid having a lowered molecular weight has a weight average molecular weight of 1,300 to 1,700 (Da).

25 – 36 (canceled).

37. (new): The process according to claim 5, wherein the glycosaminoglycan fraction is a fraction comprising at least one species of glycosaminoglycans selected from the group consisting of chondroitin sulfate D and chondroitin sulfate E.